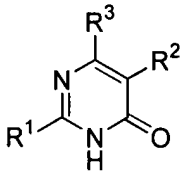
AMENDMENTS TO THE SPECIFICATION

Please amend the specification, as follows:

Please add the following paragraphs at page 8, after the last paragraph:

The present invention is also directed to a method for therapeutic treatment of a disease caused by tau protein kinase 1 hyperactivity, which comprises administering to a patient a therapeutically effective amount of a substance selected from the group consisting of a pyrimidone derivative represented by formula (I) or a salt thereof, or a solvate thereof or a hydrate thereof:



(I)

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wherein

R^1 represents a group represented by $-N(R^4)-W-R^5$ wherein

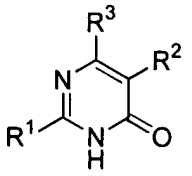
R^4 and R^5 independently represent a hydrogen atom, a C_1-C_{18} alkyl group which may be substituted, a C_3-C_{18} alkenyl group which may be substituted, a C_3-C_{18} alkynyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, or a C_6-C_{14} aryl group which may be substituted, and

symbol "W" represents a single bond, a carbonyl group, a sulfonyl group, or a nitrogen atom which may be substituted with a C_1-C_{18} alkyl group which may be substituted;

R^2 represents a hydrogen atom, hydroxyl group, an unsubstituted C_1-C_8 alkyl group, a C_3-C_8 alkenyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, a C_1-C_8 alkyloxy group which may be substituted, a C_3-C_8 cycloalkyloxy group which may be substituted, a C_6-C_{14} aryloxy group which may be substituted, a C_1-C_8 alkylthio group which may be substituted, a halogen atom, nitro group, cyano group, an amino group which may be substituted, carboxyl group, a C_1-C_8 alkyloxycarbonyl group which may be substituted, a C_3-C_8 cycloalkyloxycarbonyl group which may be substituted, carbamoyl group, a A1 C_1-C_8 alkylaminocarbonyl group which may be substituted, or a C_1-C_8 dialkylaminocarbonyl group which may be substituted; and

R^3 represents a pyridyl group which may be substituted.

The present invention is also directed to a method for prophylactic treatment of a disease caused by tau protein kinase 1 hyperactivity, which comprises administering to a patient a prophylactically effective amount of a substance selected from the group consisting of a pyrimidone derivative represented by formula (I) or a salt thereof, or a solvate thereof or a hydrate thereof:



(I)

wherein

R^1 represents a group represented by $-N(R^4)-W-R^5$ wherein

R^4 and R^5 independently represent a hydrogen atom, a C_1-C_{18} alkyl group which may be substituted, a C_3-C_{18} alkenyl group which may be substituted, a C_3-C_{18} alkynyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, or a C_6-C_{14} aryl group which may be substituted, and

symbol "W" represents a single bond, a carbonyl group, a sulfonyl group, or a nitrogen atom which may be substituted with a C_1-C_{18} alkyl group which may be substituted;

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R^2 represents a hydrogen atom, hydroxyl group, an unsubstituted C_1-C_8 alkyl group, a C_3-C_8 alkenyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, a C_1-C_8 alkyloxy group which may be substituted, a C_3-C_8 cycloalkyloxy group which may be substituted, a C_6-C_{14} aryloxy group which may be substituted, a C_1-C_8 alkylthio group which may be substituted, a halogen atom, nitro group, cyano group, an amino group which may be substituted, carboxyl group, a C_1-C_8 alkyloxycarbonyl group which may be substituted, a C_3-C_8 cycloalkyloxycarbonyl group which may be substituted, carbamoyl group, a C_1-C_8 alkylaminocarbonyl group which may be substituted, or a C_1-C_8 dialkylaminocarbonyl group which may be substituted; and

R^3 represents a pyridyl group which may be substituted.

The present invention is also directed to a method of inhibiting tau protein kinase 1 which comprises administering to a mammal a therapeutically effective amount of at least one pyrimidone derivative represented by formula (I) or a salt thereof, or a solvate thereof or a hydrate thereof

(I)

wherein

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R^1 represents a group represented by $-N(R^4)-W-R^5$ wherein

R^4 and R^5 independently represent a hydrogen atom, a C_1-C_{18} alkyl group which may be substituted, a C_3-C_{18} alkenyl group which may be substituted, a C_3-C_{18} alkynyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, or a C_6-C_{14} aryl group which may be substituted, and

symbol "W" represents a single bond, a carbonyl group, a sulfonyl group, or a nitrogen atom which may be substituted with a C_1-C_{18} alkyl group which may be substituted;

R^2 represents a hydrogen atom, hydroxyl group, an unsubstituted C_1-C_8 alkyl group, a C_3-C_8 alkenyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, a C_1-C_8 alkyloxy group which may be substituted, a C_3-C_8 cycloalkyloxy group which may be substituted, a C_6-C_{14} aryloxy group which may be substituted, a C_1-C_8 alkylthio group which may be substituted, a halogen atom, nitro group, cyano group, an amino group

which may be substituted, carboxyl group, a C_1-C_8 alkyloxycarbonyl group which may be substituted, a C_3-C_8 cycloalkyloxycarbonyl group which may be substituted, carbamoyl group, a C_1-C_8 alkylaminocarbonyl group which may be substituted, or a C_1-C_8 dialkylaminocarbonyl group which may be substituted; and

R^3 represents a pyridyl group which may be substituted.

The disease can be a neurodegenerative disease.

The disease can be selected from the group consisting of Alzheimer disease, ischemic cerebrovascular accidents, Down syndrome, cerebral bleeding due to cerebral amyloid angiopathy, progressive supranuclear palsy, subacute sclerosing panencephalitic parkinsonism, postencephalitic parkinsonism, pugilistic encephalitis, Guam parkinsonism-dementia complex, Lewy body disease, Pick's disease, corticobasal degeneration and frontotemporal dementia.

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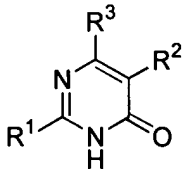
R^2 can represent a hydrogen atom and R^3 can represent a 4-pyridyl group which may be substituted.

R^2 can represent an unsubstituted, linear C_1-C_8 alkyl group.

The present invention is also directed to a pyrimidone derivative represented by formula (I) or a salt thereof, or a solvate thereof or a hydrate thereof:



(I)

wherein

R^1 represents a group represented by $-N(R^4)-W-R^5$ wherein

R^4 represents a hydrogen atom;

R^5 represents a C_1-C_{18} alkyl group which may be substituted, a C_3-C_{18} alkenyl group which may be substituted, a C_3-C_{18} alkynyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, or a C_6-C_{14} aryl group which may be substituted, and

symbol "W" represents a single bond, a carbonyl group, a sulfonyl group, or a nitrogen atom which may be substituted with a C_1-C_{18} alkyl group which may be substituted;

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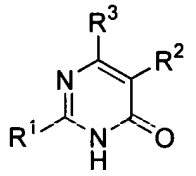
R^2 represents a hydrogen atom, hydroxyl group, an unsubstituted, linear C_1-C_8 alkyl group, a C_3-C_8 alkenyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, a C_1-C_8 alkyloxy group which may be substituted, a C_3-C_8 cycloalkyloxy group which may be substituted, a C_6-C_{14} aryloxy group which may be substituted, a C_1-C_8 alkylthio group which may be substituted, a halogen atom, nitro group, cyano group, an amino group which may be substituted, carboxyl group, a C_1-C_8 alkyloxycarbonyl group which may be substituted, a C_3-C_8 cycloalkyloxycarbonyl group which may be substituted, carbamoyl group, a C_1-C_8 alkylaminocarbonyl group which may be substituted, or a C_1-C_8 dialkylaminocarbonyl group which may be substituted; and

R^3 represents a 4-pyridyl group which may be substituted.

The present invention is also directed to a pyrimidone derivative represented by formula (I) or a salt thereof, or a solvate thereof or a hydrate thereof:



(I)

wherein R^1 represents a group represented by $-N(R^4)-W-R^5$ wherein

R^4 represents a hydrogen atom, a C_1-C_{18} alkyl group which may be substituted, a C_3-C_{18} alkenyl group which may be substituted, a C_3-C_{18} alkynyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, or a C_6-C_{14} aryl group which may be substituted,

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R^5 represents an alkyl group which may be substituted, said alkyl group being one of ethyl group, n-propyl group, isopropyl group, n-butyl group, isobutyl group, sec-butyl group, tert-butyl group, n-pentyl group, isopentyl group, neopentylgroup, 1,1-dimethylpropyl group, n-hexyl group, isohexyl group, a linear or branched heptyl group, octyl group, nonyl group, decyl group, undecyl group, dodecyl group, tridecyl group, tetradecyl group, pentadecyl group or octadecyl group, a C_3-C_{18} alkenyl group which may be substituted, a C_3-C_{18} alkynyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, or a C_6-C_{14} aryl group which may be substituted, and

symbol "W" represents a single bond, a carbonyl group, a sulfonyl group, or a nitrogen atom which may be substituted with a C_1-C_{18} alkyl group which may be substituted;

R^2 represents a hydrogen atom, hydroxyl group, an unsubstituted, linear C_1-C_8 alkyl group, a C_3-C_8 alkenyl group which may be substituted, a C_3-C_8 cycloalkyl group which may be substituted, a C_1-C_8 alkyloxy group which may be substituted, a C_3-C_8 cycloalkyloxy group which may be substituted, a C_6-C_{14} aryloxy group which may be substituted, a C_1-C_8 alkylthio group which may be substituted, a halogen atom, nitro group, cyano group, an amino group which may be substituted, carboxyl group, a C_1-C_8 alkyloxycarbonyl group which may be substituted, a C_3-C_8 cycloalkyloxycarbonyl group which may be substituted, carbamoyl group, a C_1-C_8 alkylaminocarbonyl group which may be substituted, or a C_1-C_8 dialkylaminocarbonyl group which may be substituted; and

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R^3 represents a 4-pyridyl group which may be substituted.

R^5 can represent a C_1-C_{18} alkyl group substituted with a C_6-C_{10} aryl.

R^2 can represent a hydrogen atom, an unsubstituted, linear C_1-C_8 alkyl group, or a halogen atom.

R^2 can represent a hydrogen atom.

The symbol "W" can represent a single bond or a carbonyl group.

R^1 can represent N,N-diethylamino group, N,N-dipropylamino group, N-benzyl-N-methylamino group, N-isobutyl-N-methylamino group, N-benzylamino group, N-(3-hydroxypropyl)amino group, N-cyclohexylmethylamino group, N-phenylamino group, N-(4-ethylphenyl)amino group, N-(3-bromophenyl)amino group or N-(3-methoxyphenyl)amino group.

R^3 can represent 4-pyridyl group.

The pyrimidone derivative can be selected from the group of:

2-(N-phenylamino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N,N-diethylamino)-6-(4-pyridyl)pyrimidin-4-one,

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2-(N,N-dipropylamino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N-benzylamino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N-benzyl-N-methylamino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N-(3-bromophenyl)amino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N-(4-ethylphenyl)amino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N-(3-methoxyphenyl)amino)-6-(4-pyridyl)pyrimidin-4-one,

2-(N-cyclohexylmethylamino)-6-(4-pyridyl)pyrimidin-4-one, and

2-(N-isobutyl-N-methylamino)-6-(4pyridyl)pyrimidin-4-one,

or a salt thereof, or a solvate thereof or a hydrate thereof.

The present invention is also directed to a pharmaceutical composition comprising as an active ingredient a substance selected from the group consisting of the pyrimidone derivatives or a salt thereof, or a solvate thereof or a hydrate thereof according to any of the above.